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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Paul, AZ
FYI - 11/2/96
Sam
1630200005
Sauget (H&Q)
SF/Tech
REPLY TO THE ATTENTION OF:

RECEIVED

JAN 10 1996

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153450

IEPA/DLPC

Date: January 2, 1996

To: Jennifer Wendel
Gateway Initiative Coordinator

From: Sam Borries
On-Scene Coordinator

Subject: Gateway Site Assessments and Arkansas Post & Pole
(aka Eagle Picher Lead)

Attached please find two report summaries from Ecology & Environment discussing the remaining East St. Louis Gateway Sites and the residential soil sampling event around the Arkansas Post & Pole facility.

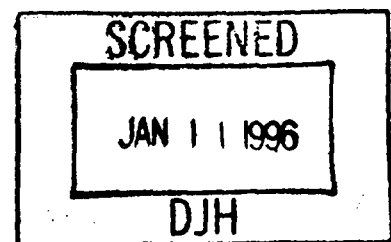
The Gateway Sites in the first attachment along with the sites in my 11/21/95 memo complete the assessment process for the 21 known East St. Louis sites. The second attachment is the relevant portions of the soil sampling/assessment for the residential areas surrounding the Arkansas Post & Pole facility in East St. Louis.

Once you have had the time to review these documents please contact me at the numbers below. I would like to schedule a time we can meet and discuss the findings and any necessary action we should consider to further address these sites.

I can be reached through voice mail at 353-2886 or on-site at (312) 722-1875.

Attachments

cc: D. Bruce, USEPA
K. Lumino, USEPA
J. Perricone, USEPA
T. Crause, IEPA
P. Takacs, IEPA
T. Miller, IEPA



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International Specialists in the Environment

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Chicago, Illinois 60604
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December 28, 1995

Samuel F. Borries, On-Scene Coordinator
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Results of File Search, Gateway Initiative Project Sites, East St. Louis, Illinois, Contract Number 68-W0-0037, Technical Direction Document (TDD) Number T05-9512-701.

Dear Mr. Borries:

On December 18 through 20, 1995, Ecology and Environment, Inc. (E & E) conducted a review of Illinois Environmental Protection Agency (IEPA) site files and performed a windshield reconnaissance inspection for each of the sites listed below, in accordance with the above referenced TDD. Attached please find attached the information compiled by E & E for the following sites:

Certain Teed Corp.
IP Town Gas Sites (two sites)
Lanson Chemical/Purex Corp.
Pfizer Inc.
SCA Milam Landfill
Southern Railroad
United Steel Drum, Inc.

Please feel free to contact me if you have any questions or concerns regarding this information.

Sincerely,
ECOLOGY AND ENVIRONMENT, INC.

Cathy Sullivan

for Dean Tiebout
Project Manager

Tom Kouris

for Tom Kouris
TAT Leader

Attachments

• Ecology and Environment, 1995

008304

U.S. EPA ID# ILD984903153
State ID # 1630450119

tain Teed) site is located on two-square blocks in an industrial/residential
y 16th Street to the west, Broadway to the north, 18th Street to the east
Residential areas are located just north of the site across Broadway, and
treet. The site occupies 14 acres, with 11 acres owned by the John
(Corder), one acre owned by United Packaging (United), and 2 acres are

te operations from 1904 to 1980. The company produced rolls of
er and shingles, dry felt paper, and small amounts of cements and
n abn -ground storage tanks that were used at the facility to store
ie site between 1950 and 1955. Air emissions from the site consisted of
, slate dust, soap stone or talc dust, mica flakes, light oils, wood fibers,

e site in 1981. The section of the site occupied by Corder is currently
iding tanks, scrap metal, electrical motors, electrical panels, production
machine parts.

n 1987. The company accepts bulk nonhazardous chemicals for
n stearate, calcium hydroxide, soda ash, and sodium sulfate.

of the Illinois Environmental Protection Agency (IEPA)
Response, Compensation, and Liability Act (CERCLA) Site
reconnaissance inspection of the site, which included an assessment of

On April 5, 1994, IEPA collected 12 surface soil samples from
ct storage areas on site, and nearby residential areas. The results of the
e of several polynuclear aromatic hydrocarbons (PAHs), including
concentration of 17 parts per million (ppm), indeno(1,2,3-cd) pyrene
acene (3.7 ppm); phthalates; Aroclor 1254 (2.8 ppm); and Aroclor
nearby residential soils. Aroclor 1260 was detected in one residential
of 0.22 ppm. Approximately 194,060 square feet of soil were

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estimated to be contaminated with the above contaminants. File information does not indicate if a cleanup occurred at the site.

A windshield site reconnaissance was conducted by E & E on December 20, 1995. Corder continues to use the site for equipment storage; numerous tanks and miscellaneous equipment were observed in a fenced area in the northwest portion of the site. Office and warehouse buildings are still present on site. The Nu Star Distribution Center (Nu Star) is located southwest of the site, on the property formerly occupied by Unifab. Nu Star fabricates reinforcing steel. Other observations, such as soil cover and evidence of spills or stained soil, could not be made due to a heavy snow cover at the time of the inspection.

**IP Town Gas Site
2002 Lynch Avenue
East St. Louis, Illinois**

**U.S. EPA ID# None
State ID # 1630450112**

No file information was available for this site. IEPA representatives indicated that the IP Town Gas sites were prioritized for possible cleanup on a statewide basis by Illinois Power. Limited information exists for the sites that have been initially assessed as low priority (IEPA site files indicate that a Phase I assessment was conducted at the site; however, the document was not received by IEPA). A site reconnaissance inspection was conducted by E & E on December 20, 1995. The site is currently a vacant lot. Pfizer Chemical Company is located north of the site at 2001 Lynch Avenue. Open areas are located east and west of the site, and a football field is located further southwest of the site. Large piles of what appeared to be road salt, were stockpiled south of the vacant lot in a fenced area that may have been part of the site. The site area is flat; however, potential surface run-off pathways, and the presence of potential direct contact hazards, such as stained or bare soil, could not be assessed due to heavy snow cover at the time of the inspection.

**IP Town Gas Site
Brooklyn Avenue
East St. Louis, Illinois**

**U.S. EPA ID# None
State ID # 1630450113**

No file information was available for this site. IEPA representatives indicated that the IP Town Gas sites were prioritized for possible cleanup on a statewide basis by Illinois Power. Limited information exists for the sites that have been initially assessed as low priority (IEPA site files

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indicate that a Phase I assessment was conducted at the site; however, the document was not received by IEPA). The actual site location could not be positively identified because Brooklyn Avenue no longer exists in East St. Louis; however, E & E conducted a site reconnaissance inspection in the area where the site was believed to have been located based on information provided by IEPA. The suspected site area is located in an industrial/residential area north of 100 West Missouri Avenue and approximately 0.75 of a mile east of the Mississippi River. The foundation of a building and numerous piles of construction debris were observed in the area. Three residential homes and a commercial business were located south of the site area. The general site topography is flat; however, potential surface run-off pathways, and the presence of potential direct contact hazards, such as stained or bare soil, could not be assessed due to heavy snow cover at the time of the inspection.

**Lanson Chemical/Purex Corp. -Lanson Chemical Div.
800 South 31st Street
East St. Louis, Illinois**

**U.S. EPA ID # Not Found in File
State ID # 1630300009**

The inactive 5-acre site contains a main building and a storage shed. The site is surrounded by a 10-foot high chainlink fence, and bordered by a railroad spur on the south, Piggot Avenue to the north, and vacant lots to the east and west. The site has had a number of owners and operators, with the current site owner, Lanson Chemical, beginning operations at the site in 1962. Lanson Chemical produced alkyd resins and emulsion copolymers for paints and floor waxes. Wastewater and off-specification materials were dumped in a low-lying wetland area on the south side of the property until 1978. In 1981, the current owner pumped approximately 125,000 gallons of material into process storage tanks that were left on site in 55-gallon drums by the previous owner. IEPA investigated resident complaints of dumping and offensive odors in 1977, 1985, and 1990. A Preliminary Assessment was completed for the site by the United States Environmental Protection Agency (U.S. EPA) in 1984, and a Site Inspection Report was completed in 1985. The results of analysis of soil samples collected during the site inspection indicated the presence of toluene at a maximum concentration of 11 micrograms per kilogram ($\mu\text{g}/\text{kg}$); 2-butanone (73 $\mu\text{g}/\text{kg}$); polychlorinated biphenyls (PCBs) (10,100 $\mu\text{g}/\text{kg}$); and several tentatively identified compounds (TICs). The site received a Hazard Ranking System (HRS) score of 21.96, and was placed on the State Priority List on January 4, 1988.

A spill of approximately 5,000 gallons of a resin-like material inside the facility reportedly occurred in May 1992. The spill triggered an emergency response cleanup action at the site. U.S. EPA

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commenced cleanup activities at the site on June 1, 1992. U.S. EPA removed the spilled resin material from the building and excavated soil outside of the building that had been impacted by the spill, removed the contents of drums and tanks at the site for off-site disposal, removed sediment from the base of the on-site sump, and decontaminated the walls of the sump. U.S. EPA also removed and disposed of asbestos-containing material (ACM) from pipes inside the building. The results of soil sampling conducted by U.S. EPA around the site perimeter and in nearby residential areas did not indicate significant levels of PCBs in on-site soil and did not detect the presence of PCBs in residential areas. Removal activities were completed in 1992, with additional remedial work addressing potential groundwater contamination to be conducted by IEPA.

A site reconnaissance inspection was conducted by E & E on December 20, 1995. The site is completely fenced; however, the fence was slightly damaged at some locations. The main building, a small storage building, and two semitrailers were present on site. No evidence of tanks or drums was observed, with the exception of a small fuel storage tank. The main building is in poor condition, with sections of the roof appearing ready to collapse. Heavy snow cover at the time of the inspection prevented an assessment of soil conditions (i.e., soil cover, staining, etc.) and potential run-off pathways at the site.

**Pfizer Inc.
2001 Lynch Avenue
East St. Louis, Illinois**

**U.S. EPA ID # ILD006307119
State ID # 1630450034**

The active facility is located in an industrial/residential area of East St. Louis. The site is bordered by railroad tracks on the north, west, and east; and by Lynch Avenue to the south. A former Illinois Power town gas site is located south of the facility at 2002 Lynch Avenue. Residential homes are located adjacent to the site on the west, and an open field is located east of the site. Pfizer Pigments, Inc. (Pfizer) conducted operations at the site from 1941 until 1990, when Harcros Pigments, Inc. (the current owner) assumed ownership of the facility. The company produces inorganic pigments, red and yellow iron oxides and barium sulfate, and magnetic pigments by using scrap iron and sulfuric acid. The facility also uses waste hydrochloric acid and sulfuric acid pickle liquor from area steel industries in their operations. The pickle liquor is stored in two 35,000-gallon tanks and one 40,000-gallon tank. Pickle liquor is combined with scrap iron in six open-top treatment tanks. The sludge generated during the process is discharged to the on-site waste water treatment plant for neutralization, treatment, and analysis. Following treatment, the sludge is disposed of off site at three

permitted landfills in the area. The company discharges noncontact cooling water to a municipal storm sewer at the factory, which discharges to Schoenberger Creek, approximately 0.6 miles north of the facility.

A Resource Conservation and Recovery Act (RCRA) inspection conducted by IEPA in July 1981 cited the facility for not meeting interim standards for training, and emergency and contingency plans and procedures. Subsequent RCRA inspections by IEPA indicated minor violations that were rectified by the company in a timely manner. Site file information does not indicate that environmental problems have occurred as a result of facility operations. A biological and water quality survey of Schoenberger Creek conducted in October of 1988 by IEPA detected elevated levels of arsenic, cadmium, chromium, lead, and zinc in creek sediments; however, IEPA concluded that the patterns of degradation identified in the creek did not indicate that cooling water discharged from the facility was a contributor to the potential contamination.

E & E conducted a site reconnaissance on December 20, 1995. Surrounding soil cover and conditions could not be adequately assessed due to the heavy snow cover present; however, much of the area immediately surrounding the facility appears to be paved. A number of buildings are present on site, and appeared to be in good condition.

**SCA Milam Landfill
I-55 and Rt. 203
East St. Louis, Illinois**

**U.S. EPA ID # ILT180014961
State ID # 1630450001**

The active landfill occupies 265 acres in Venice Township and is bordered by Old Cahokia Creek on the west and south, Cahokia Canal on the north, and ponded areas on the east. The Gateway Truck Stop is located southwest of the landfill. The site is fenced and the site access road is guarded.

Facility operations began at the site in 1965. File information indicates that the site was owned and operated by Milam Corp. from 1970 to 1973. MAL Landfill Corp. (MAL) assumed ownership of the site from 1973 to 1978. MAL merged with SCA Services of Illinois in 1978. The site is currently owned by Waste Management, Inc.

The facility has been inspected by IEPA since 1970, and has been cited for numerous violations between 1970 and 1982, including open burning, lack of cover, open dumping, operation without a

permit, deposition of liquids and hazardous materials without approval, deposition of refuse in standing water, inadequate spreading and compaction of wastes, inadequate leachate control measures, and failure to conduct a groundwater monitoring program. IEPA filed a complaint against MAL in 1972 for violations of the Environmental Protection Act as listed above. The Illinois Pollution Control Board (IPCB) fined MAL and ordered them to correct the violations. A fire reportedly occurred at the site in 1973 - 1974 in which exploding drums were observed. In 1978, IEPA again filed suit against MAL for operation and permit violations that occurred at the site from 1973 to 1978. The IPCB found MAL to be in violation of the Environmental Protection Act, and revoked the landfill's operation permits. IPCB also ordered IEPA to issue SCA Services of Illinois (MAL's successor in interest) a new operating permit incorporating terms of a settlement agreement reached in August of 1978. In the agreement, SCA was required to complete additional cover work by scheduled deadlines; insure that final cover is 24 inches thick by advancing test borings; incorporate a performance bond into the agreement; and accept responsibility for costs incurred to bring the facility into compliance.

Approximately 2,192 drums containing paint sludges and halogenated and nonhalogenated solvents were discovered in an area of the landfill along the east bank of Cahokia Creek. In February of 1984, IEPA and SCA entered into a consent decree that required SCA to stop discharge of leachate and dispose of hazardous leachate off site; implement a Contamination Assessment Plan (CAP) by June 1985; initiate drafting of a comprehensive remedial action and removal plan after completion of the CAP; submit a plan for removal of the drums and contaminants in the special waste area of the landfill by September 30, 1984; stay within the present lateral fill boundaries of the site; hire a professional engineer to do monthly inspections of the site and report to IEPA; and submit a plan to monitor for gas, water, and settling at the "Old" Milam site. A removal action was commenced in August of 1984 to remove the drums from the site. Sediment and groundwater samples were collected from the area (referred to in site files as the "Old Drum Area") by U.S. EPA's Field Investigation Team (FIT) in 1984. Results of analysis of the sediment samples indicated the presence of chlorobenzene at a concentration of 0.37 milligrams per kilogram (mg/kg); ethylbenzene (0.036 mg/kg); 4,4'-DDE (0.047 mg/kg); 4,4'-DDD (0.051 mg/kg); methylene chloride (0.009 mg/kg); and acetone (0.1 mg/kg). Groundwater analysis results revealed the presence of 1,1-dichloroethane at 0.056 and 0.005 milligrams per liter (mg/L); bis(2-ethylhexyl)phthalate (0.018 mg/L); and di-n-octylphthalate (0.028 mg/L). Available file information did not indicate when the remedial activities (i.e., the drum removal) were completed; however, a conversation with Mr. Ken Mensing of IEPA

indicated that the remedial activities were performed as indicated in the consent decree.

E & E conducted an off-site reconnaissance inspection of the site on December 20, 1995. The site was receiving wastes at the time of the inspection. The site is fenced; however, openings in the fence were observed in an area called the "South Gate". Exposed refuse was not observed, although heavy snow cover at the time of the inspection prevented an adequate assessment of ground surface conditions.

**Southern Railroad
Address Unreported
East St. Louis, Illinois**

**U.S. EPA ID #ILD980679567
State ID # 1630450039**

The site is an approximately 100-yard stretch of property belonging to Norfolk and Southern Railroad along the bank of the Mississippi River which is often submerged, depending on the elevation of the river.

The area has had numerous problems with illegal dumping of drums and/or tires, and burning of tires. A Preliminary Assessment (PA) completed by IEPA on December 13, 1984, indicated that drums containing paint waste were observed partially buried along the river bank and submerged during an on-site inspection conducted on October 30, 1981. The railroad was not believed to have been involved with the illegal dumping, but nevertheless accepted responsibility for the removal and proper disposal of the drums. Approximately 20 drums and 15 cubic yards of soil were removed from the site on November 8, 1982, and disposed of at Peoria Disposal Company (PDC). Two additional drums were observed on August 12, 1985, by IEPA and were subsequently disposed of off site. Burning of used tires has occurred at the site on numerous occasions, including April 7, 1982, and July 15, 1982. The railroad made an agreement with D.C. Tire Company to remove the tires from the site. The railroad also constructed barricades to prevent vehicular access to the site. The site file was closed in regards to the drums and tires on November 5, 1982. The PA rated the site as "No Priority" for cleanup, based on the actions taken by the railroad; however, dumping problems continued. IEPA reported open dumping of used tires, waste disposal without a permit, and open burning of used tires during a compliance inspection on March 4, 1986. Ten 55-gallon drums were discovered at the site in August of 1988. The drums were removed and disposed of at Petrochem in St. Louis, Missouri. The railroad increased security in the area in addition to the barricades.

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E & E conducted a reconnaissance inspection of the area on December 20, 1995. The barricades were in place, in good condition, and prevented vehicle access to the area; however, a security guard was not observed. Empty fragments of two drums were observed along the access road leading to the site area. No drums were observed in the site area; however, heavy snow cover prevented an adequate assessment of ground conditions. In addition, it is not known if drums were submerged in the river bank, although E & E did not observe any indication of drums (e.g., irregular mounds at the ground surface) in the site area.

United Steel Drum, Inc.
3105 Missouri Avenue (Hwy 15)
East St. Louis, Illinois

U.S. EPA ID # ILD077117992
State ID # 1630450030

The United Steel Drum, Inc. (USD), site is an active drum recycling facility located in an industrial area of East St. Louis, Illinois. The site is comprised of 57 acres, with 36 acres belonging to Alton and Southern Railroad, 17 acres belonging to Mr. Cletus Carron, 3 acres belonging to Lewis Building Corp., and 1 acre belonging to the City of East St. Louis.

Drum recycling operations at the site have been conducted by Carron since 1977, after moving from a site on Bunkum Road in Washington Park, Illinois. Carron obtains used drums and various containers, and reconditions them for resale. In past operations, drums that could not be recycled were deposited throughout the site and on adjacent properties. Many of the nonrecyclable drums contained residues of paint, ink solvents, oil, caustics, food products, or miscellaneous trash. IEPA first inspected the Missouri Avenue facility on March 30, 1979. More than 10,000 drums were observed by IEPA strewn about the facility and on adjacent properties. A written notice of violation was sent to Carron on May 31, 1979. Numerous investigations and legal procedures failed to induce Carron to improve site conditions. On September 30, 1986, the Attorney General's office (AGO) and IEPA documented approximately two dozen companies from markings on drums at the facility. A 4Q Notice was issued on October 22, 1986, identifying those companies and owners of properties containing drums as Potentially Responsible Parties (PRPs). The PRPs provided USD's container list to IEPA, and a second 4Q Notice was issued on March 10, 1987, citing over 70 USD customers as PRPs. The most prominent of the PRPs formed a Joint Steering Committee to comply with the 4Q Notice, and a consent agreement was signed on April 7, 1987, allowing USD to remove empty drums from the site. Approximately 16,000 empty drums were reconditioned, scrapped, or disposed of off site. After numerous schedule delays, the Committee contracted O.H. Materials (OHM) to perform

n up of the site. Phase I cleanup activities commenced on December 2, 1987, and consisted of removal and off-site disposal of more than 4,100 drums at the ground surface. Phase II commenced in December 1988, and consisted of the excavation and removal of more than 1,200 old drums and associated waste materials (i.e., rags, respirators, paint sludges). Following removal of the drums, OHM collected over 200 soil samples from excavation areas, drum clusters, non-drum areas, and background areas. The cleanup activities concluded on January 13, 1989, following the sampling activities. Sample analysis results and comparison with background levels indicated that levels of inorganics and total organic carbon (TOC) detected were consistent with background levels.

Windshield reconnaissance was conducted by E & E on December 20, 1995. The facility is active, with numerous drums stockpiled in the process areas. The main process area, which contains the site buildings, is fenced. E & E was not able to access the rear of the facility to observe the areas assessed in the earlier removal action, and heavy snow cover prevented an assessment of ground surface conditions (i.e., stained soil, bare soil, etc.).

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RECEIVED

JAN 10 1996

IEPA/DLPC

December 28, 1995

Samuel F. Borries, On-Scene Coordinator
U. S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Summary of Residential Soil Sampling Results, Gateway Initiative Project, East St. Louis, Illinois, Contract Number 68-W0-0037, Technical Direction Document (TDD) # T05-9512-701.

Dear Mr. Borries:

Attached please find the results of residential soil sampling and analysis for selected metals which were collected by Ecology and Environment, Inc. (E & E), for the above-referenced project. On December 11 through 13, 1995, E & E personnel Dean Tiebout and Cathy Sullivan, accompanied by Connie Letsky, Peter Sorenson, and J. Stanley Black of the Illinois Environmental Protection Agency (IEPA), collected 88 surface soil samples (including 8 duplicate samples) from the project area as defined in the Sampling Quality Assurance/Quality Control (QA/QC) Work Plan for the site. The Work Plan was prepared by E & E and submitted to The United States Environmental Protection Agency (U.S. EPA) on December 7, 1995. Samples were collected from the upper inch of soil using a stainless steel spoon. If grass cover was present in the area to be sampled, the sample was collected by first removing the grass layer, then collecting a sample from the first inch of soil below the grass layer.

In accordance with the sampling plan, samples were collected within a 0.5 mile radius of the Arkansas Post and Pole site, from areas owned by the City of East St. Louis, or from abandoned lots; unless prior permission was obtained from individual residents to collect a sample from their property. Twenty-four of the 80 samples were collected from the yards of current residents of the area, with prior permission obtained by IEPA. A list of the samples collected, along with the location of each sample relative to nearby city streets, is attached. Residential addresses are included for the samples collected from residential yards. The project area and approximate sample locations are illustrated in Figures 1 through 5.

Samples were analyzed at E & E's Analytical Services Center (ASC), in Buffalo, New York, for arsenic, cadmium, copper, lead, nickel, and zinc. A summary of the analytical results and the laboratory data results are also attached.

006314

Please feel free to contact me if you have any questions concerning this submittal.

Sincerely,
ECOLOGY AND ENVIRONMENT, INC.

Cathy Sullivan
for Dean Tiebout
E & E Project Manager

Tom Kouris
for Tom Kouris
TAT Leader

Attachments:

- A - Sample Location Summary
- B - Site Figures
- C - Summary of Sample Analytical Results
- D - Laboratory Data Results

0093151

Table 1
SAMPLE LOCATION SUMMARY

Date	Sample number	Location/comments	Resident Address (if applicable)*
<i>Quadrant 1</i>			
12/11/95	1QSS01	94 feet southwest of Baugh; 30 feet southeast of 1st Street	Not Applicable
12/11/95	1QSS02	30 feet southeast of 1st Street; 39 feet southwest of Dutchers lane	Not Applicable
12/11/95	1QSS03	200 feet northwest of 2nd Street; 45 feet north of Bowman - in a park by a merry-go-round	Not Applicable
12/11/95	1QSS04	232 feet southeast of 1st Street; 64 feet north of Bowman - in park by swingset	Not Applicable
12/11/95	1QSS05	134 feet north of Bowman; 123 feet southeast of 1st - in park by a picnic bench	Not Applicable
12/11/95	1QSS06	266 feet southeast of 1st; 152 feet northeast of Bowman - in park in front of slide	Not Applicable
12/11/95	1QSS07	30 feet southeast of 1st; 91 feet southwest of Exchange	Not Applicable
12/11/95	1QSS08	43 feet southeast of 2nd; 118 feet northeast of Dutchers	Not Applicable
12/11/95	1QSS09	31 feet northeast of Dutchers; 339 feet southeast of 2nd	220 Rear Bowman
12/11/95	1QSS09D	31 feet northeast of Dutchers; 339 feet southeast of 2nd	220 Rear Bowman
12/11/95	1QSS10	32 feet southwest of Baugh; 115 feet southeast of 2nd	204 Baugh
12/11/95	1QSS11	101 feet northeast of edge of St.Clair; 20 feet northwest of 2nd	Not Applicable
12/11/95	1QSS12	23 feet northwest of 1st; 9 feet southwest of Pennsylvania	Not Applicable
<i>Quadrant 2</i>			
12/11/95	2QSS01	43 feet southwest of Exchange; 181 feet northwest of 2nd	122 Exchange
12/11/95	2QSS02	247 feet southeast of 2nd; 36 feet southwest of Exchange	218 Exchange
12/11/95	2QSS03	30 feet northwest of Exchange; 258 feet southeast of 3rd	319 Exchange
12/11/95	2QSS03D	30 feet northwest of Exchange; 258 feet southeast of 3rd	319 Exchange
12/11/95	2QSS04	24 feet northeast of Winstanley; 104 feet northwest of railroad tracks - bare soil by picnic bench in front yard	421 Winstanley
12/11/95	2QSS05	224 feet northwest of 4th; 34 feet southwest of Winstanley	320 Winstanley
12/11/95	2QSS06	184 feet northwest of 3rd; 25 feet southwest of Winstanley	222A Winstanley
12/11/95	2QSS07	26 feet northeast of Winstanley; 176 feet northwest of 2nd	121 Winstanley
12/11/95	2QSS08	238 feet southeast of 2nd; 34 feet northeast of Bowman	213 Bowman
12/11/95	2QSS09	56 feet northwest of 3rd; 50 feet southwest of Bowman	Not Applicable

008316

Table 1
SAMPLE LOCATION SUMMARY

Date	Sample number	Location/comments	Resident Address (if applicable)*
12/12/95	2QSS10	43 feet northwest of 2nd; 114 feet southwest of Winstanley	Not Applicable
12/12/95	2QSS11	29 feet northeast of unnamed street between Winstanley and Exchange; 116 feet southeast of 2nd	Not Applicable
12/12/95	2QSS12	28 feet southeast of 2nd; 53 feet northeast of Exchange	Not Applicable
12/12/95	2QSS13	227 feet southwest of Exchange; 30 feet northwest of 2nd - across from North End Community Center	Not Applicable
12/12/95	2QSS14	42 feet northwest of 3rd; 63 feet southwest of alley between Exchange and Bowman	Not Applicable
12/12/95	2QSS15	24 feet northwest of 4th; 68 feet southwest of alley between Exchange and Winstanley	Not Applicable
12/12/95	2QSS15D	24 feet northwest of 4th; 68 feet southwest of alley between Exchange and Winstanley	Not Applicable
12/12/95	2QSS16	56 feet northeast of Exchange; 41 feet southeast of 7th	Not Applicable
12/12/95	2QSS17	18 feet northwest of 8th; 230 feet southwest of dead end	Not Applicable
12/12/95	2QSS18	191 feet southeast of 7th; 47 feet northeast of Exchange - adjacent to a vegetable garden	Not Applicable
12/12/95	2QSS19	38 feet southeast of 4th; 50 feet northeast of Exchange	1106 North 4th
12/12/95	2QSS20	101 feet northwest of 4th; 36 feet southwest of Exchange	Not Applicable
12/13/95	2QSS21	54 feet northwest of 7th; 156 feet southwest of Exchange	Not Applicable
12/13/95	2QSS22	219 feet southwest of Exchange; 25 feet northwest of 7th	Not Applicable
12/13/95	2QSS23	24 feet southwest of Exchange; 144 feet northwest of 7th	Not Applicable

Quadrant 3

12/13/95	3QSS01	28 feet northeast of Ohio; 134 feet northwest of 6th	Not Applicable
12/13/95	3QSS02	43 feet northeast of Ohio; 20 feet northwest of 6th	Not Applicable
12/13/95	3QSS03	104 feet northeast of Ohio; 38 feet northwest of 6th	507 N. 6th
12/13/95	3QSS04	142 feet southwest of Summit; 40 feet southeast of 6th	540 N. 6th
12/13/95	3QSS04D	142 feet southwest of Summit; 40 feet southeast of 6th	540 N. 6th
12/13/95	3QSS05	29 feet southwest of Summit; 53 feet southeast of 6th	Not Applicable
12/13/95	3QSS06	76 feet northeast of Ohio; 20 feet northwest of 7th	Not Applicable
12/13/95	3QSS07	310 feet southwest of Summit; 31 feet southeast of 7th	Not Applicable
12/13/95	3QSS08	33 feet northeast of Summit; 45 feet northwest of 7th	Not Applicable

009317

Table 1
SAMPLE LOCATION SUMMARY

Date	Sample number	Location/comments	Resident Address (if applicable)*
12/13/95	3QSS09	20 feet northwest of 8th; 267 feet southwest of Summit	Not Applicable
12/13/95	3QSS09D	20 feet northwest of 8th; 267 feet southwest of Summit	Not Applicable
12/13/95	3QSS10	38 feet northwest of 8th; 19 feet southwest of Summit	Not Applicable
12/13/95	3QSS11	23 feet northwest of 9th; 51 feet northeast of Summit	Not Applicable
12/13/95	3QSS12	20 feet southwest of Summit; 175 feet southeast of 7th	Not Applicable
12/13/95	3QSS13	19 feet southeast of 6th; 99 feet northeast of Summit	Not Applicable
12/13/95	3QSS14	30 feet southeast of 6th; 299 feet northeast of Summit	Not Applicable
12/13/95	3QSS15	24 feet southeast of 6th; 59 feet northeast of Pennsylvania	Not Applicable
12/13/95	3QSS16	190 feet southeast of 6th; 33 feet southwest of Pennsylvania	610 Pennsylvania
12/13/95	3QSS17	35 feet northwest of 7th; 298 feet northeast of Summit	629 7th
12/13/95	3QSS18	31 feet northeast of Pennsylvania; 40 feet southeast of 7th	Not Applicable
12/13/95	3QSS19	34 feet northeast of Pennsylvania; 145 feet southeast of 7th	709 Pennsylvania
12/13/95	3QSS19D	34 feet northeast of Pennsylvania; 145 feet southeast of 7th	709 Pennsylvania
12/13/95	3QSS20	33 feet southeast of 8th; 195 feet southwest of Pennsylvania	642 8th
<i>Quadrant 4</i>			
12/12/95	4QSS01	137 feet southwest of Winstanley; 40 feet northwest of 9th	Not Applicable
12/12/95	4QSS02	206 feet northeast of Exchange; 37 feet northwest of 9th	Not Applicable
12/12/95	4QSS03	56 feet southeast of 9th; 42 feet southwest of Walter	Not Applicable
12/12/95	4QSS04	65 feet southeast of 9th; 282 feet southwest of Walter	Not Applicable
12/12/95	4QSS05	180 feet northwest of 11th; 21 feet southwest of Walter	920 Walter
12/12/95	4QSS05D	180 feet northwest of 11th; 21 feet southwest of Walter	920 Walter
12/12/95	4QSS06	65 feet northeast of Pennsylvania; 44 feet southeast of 8th	Not Applicable
12/12/95	4QSS07	280 feet northeast of Pennsylvania; 36 feet northwest of 8th	Not Applicable
12/12/95	4QSS08	45 feet southeast of 8th; 248 feet southwest of St. Clair	Not Applicable
12/12/95	4QSS09	52 feet southeast of 9th; 97 feet southwest of edge of St. Clair	Not Applicable
12/12/95	4QSS10	42 feet southeast of 9th; 278 feet northeast of Pennsylvania	716 9th

000018

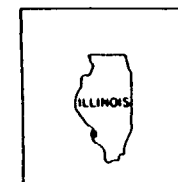
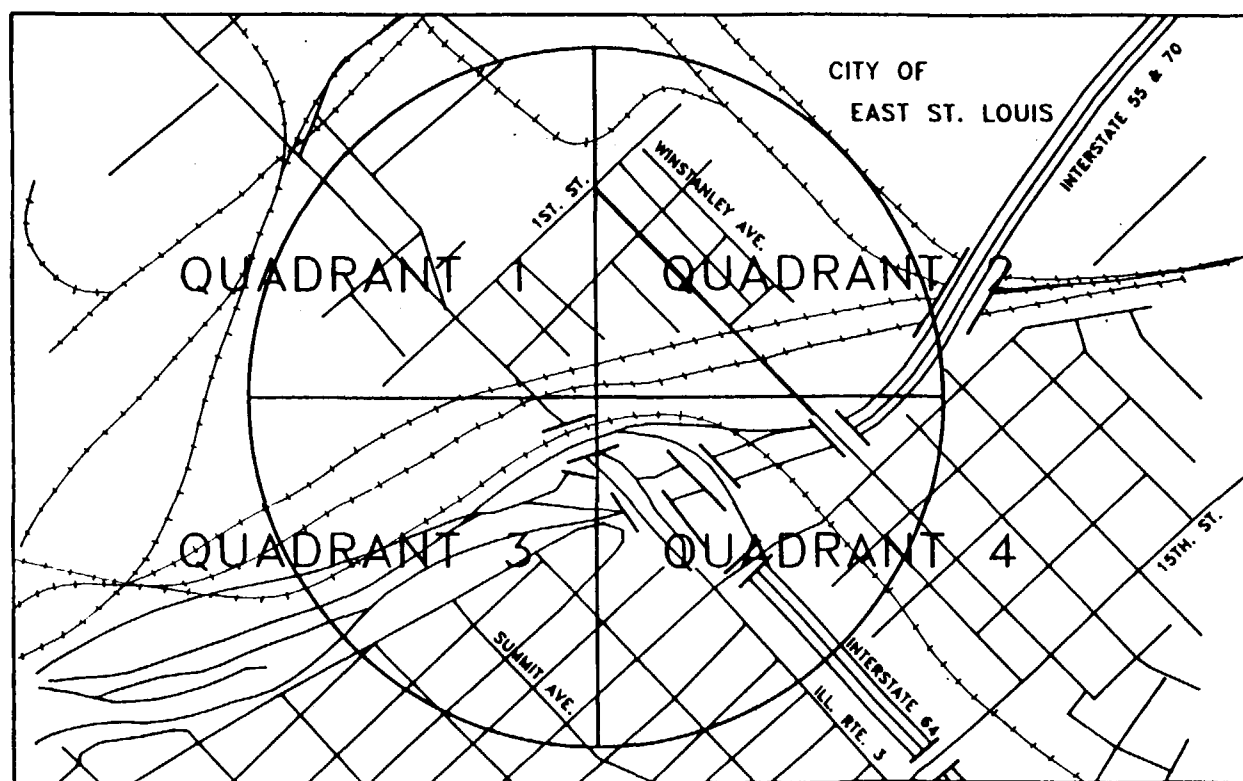
Table 1
SAMPLE LOCATION SUMMARY

Date	Sample number	Location/comments	Resident Address (if applicable)*
12/12/95	4QSS11	35 feet northeast of Pennsylvania; 41 feet southeast of 9th	Not Applicable
12/12/95	4QSS12	111 feet southeast of 9th; 30 feet southwest of Pennsylvania	Not Applicable
12/12/95	4QSS13	30 feet southwest of Pennsylvania; 90 feet northwest of 10th	Not Applicable
12/12/95	4QSS14	44 feet southwest of Summit; 37 feet northwest of 10th - by Rock High School	Not Applicable
12/12/95	4QSS15	32 feet southeast of 10th; 435 feet southwest of Pennsylvania	620 10th
12/12/95	4QSS15D	32 feet southeast of 10th; 435 feet southwest of Pennsylvania	620 10th
12/12/95	4QSS16	37 feet southwest of Pennsylvania; 149 feet northwest of 11th	Not Applicable
12/12/95	4QSS17	34 feet northeast of Pennsylvania; 37 feet southeast of 11th	Not Applicable
12/12/95	4QSS18	362 feet northeast of Pennsylvania; 18 feet northwest of 11th	725 11th
12/12/95	4QSS19	101 feet southwest of St Clair; 31 feet northwest of 11th	Not Applicable
12/12/95	4QSS20	37 feet northwest of 10th; 556 feet southwest of St. Clair	715 10th
12/12/95	4QSS21	39 feet northwest of 10th; 101 feet southwest of St. Clair	Not Applicable
12/13/95	4QSS22	38 feet southeast of 7th; 391 feet northeast of Pennsylvania	726 7th
12/13/95	4QSS23	180 feet northwest of 13th; 38 feet northeast of Baugh	1123 Baugh
12/13/95	4QSS24	22 feet northwest of 11th; 85 feet northeast of Baugh	Not Applicable
12/13/95	4QSS25	19 feet northwest of 11th; 174 feet northeast of Baugh	Not Applicable

*Note: Residential addresses were recorded when samples were collected from specified residential yards with prior permission from the owner of the residence. Other samples were collected from areas owned by the City of East St. Louis, or from abandoned properties.

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27430019



AREA LOCATION

SCALE (FT. APPROX.):

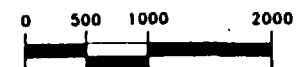
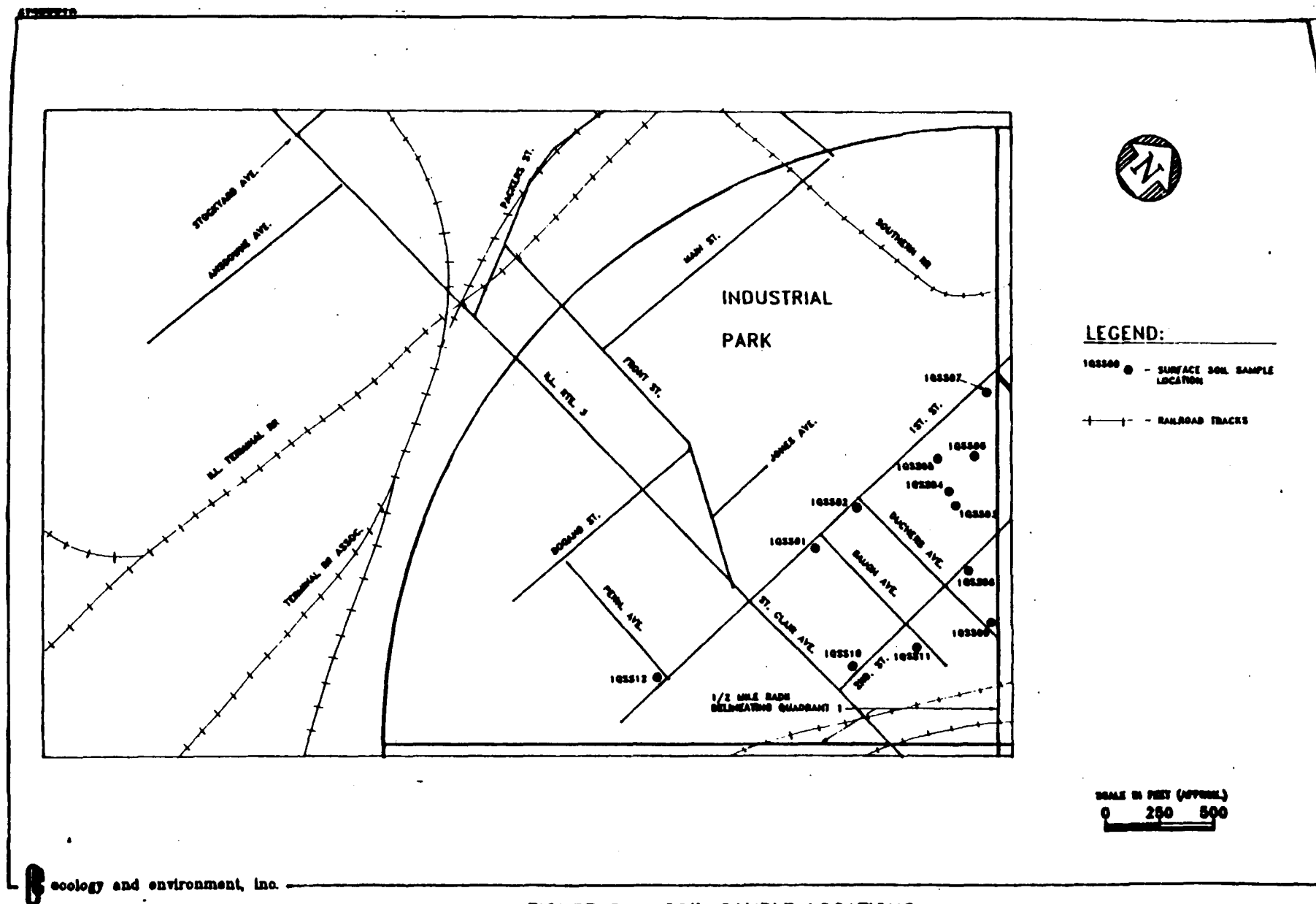
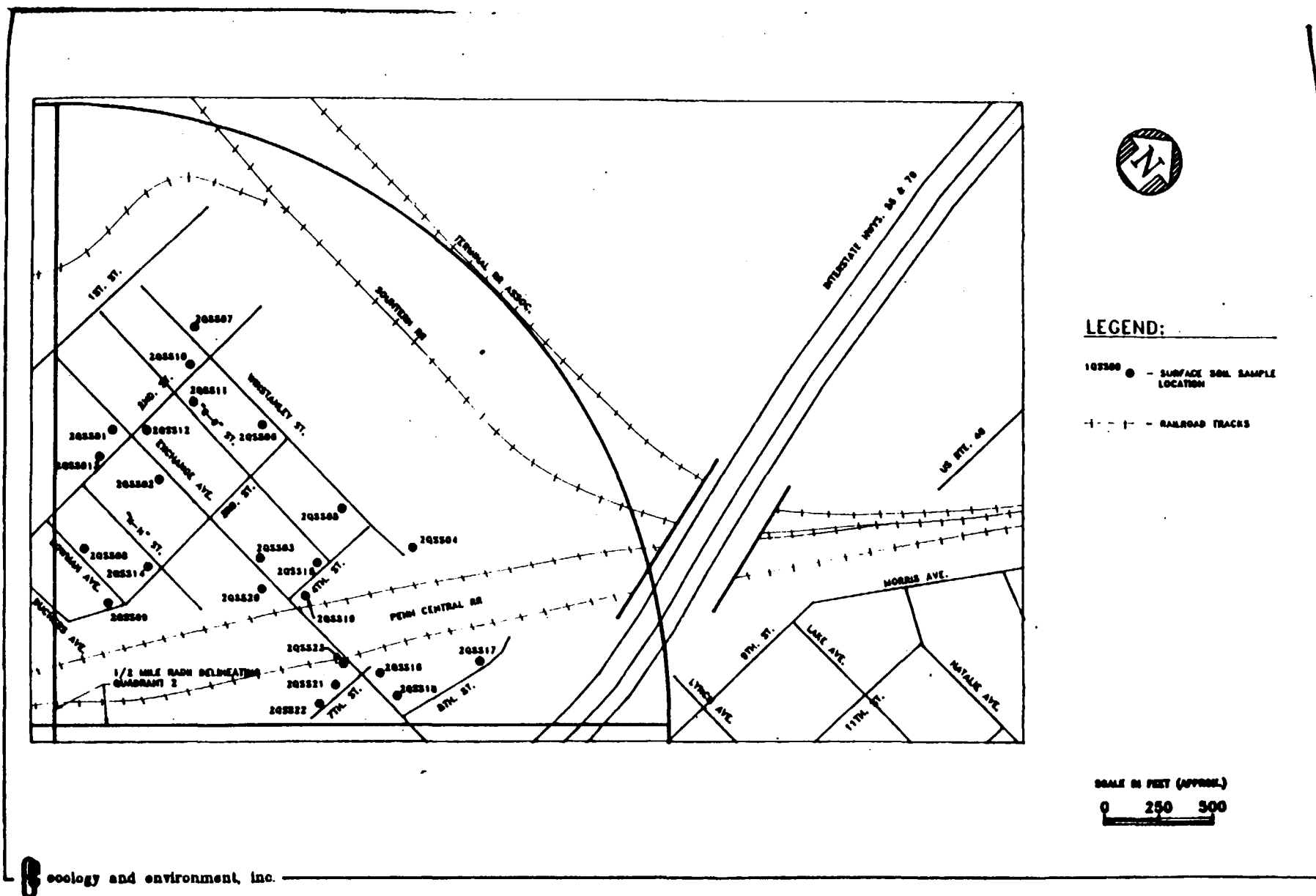


FIGURE 1

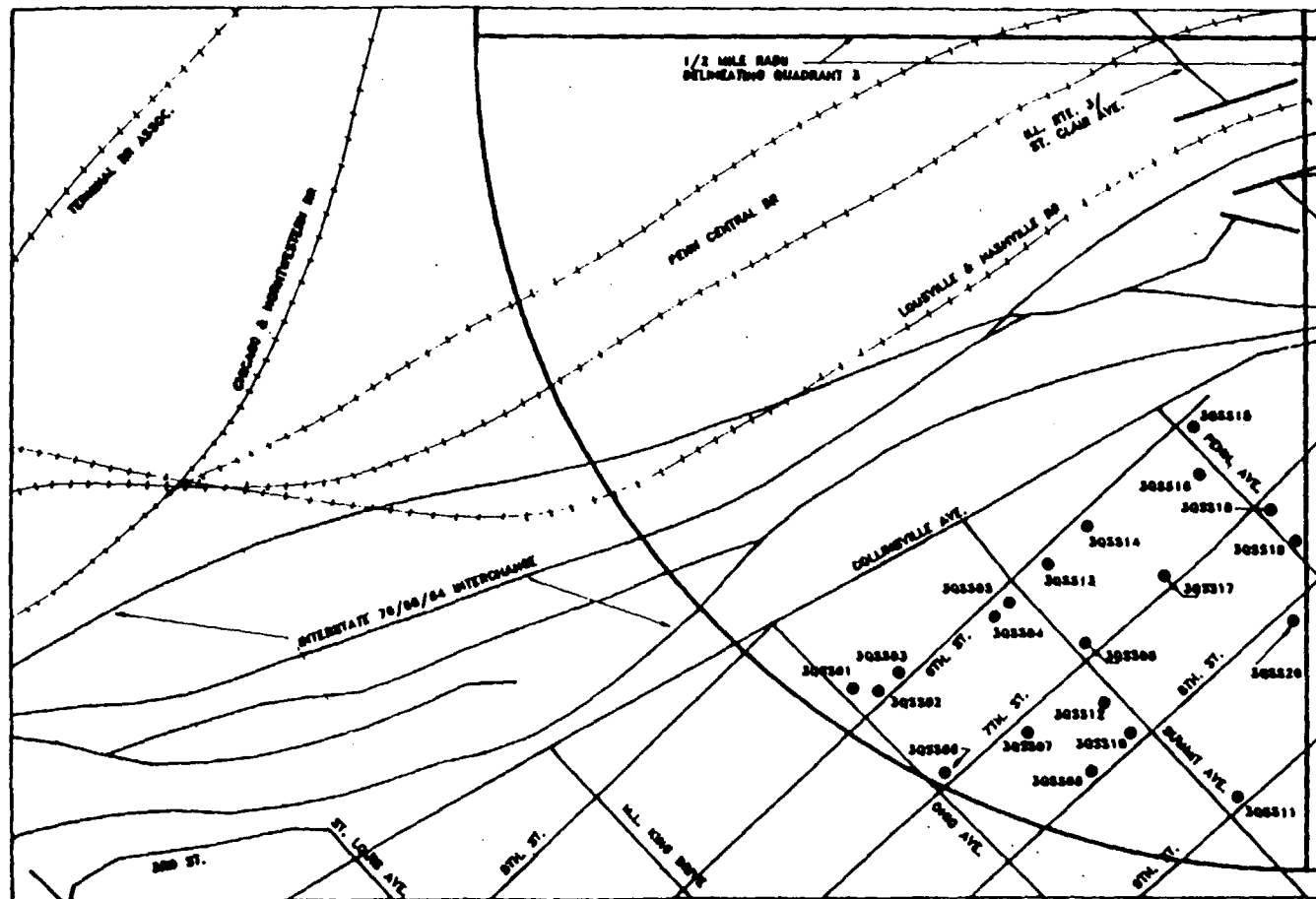
STUDY AREA LOCATION MAP
GATEWAY INITIATIVE PROJECT
EAST ST. LOUIS, IL.





**FIGURE 3 - SAMPLE LOCATIONS
GATEWAY INITIATIVE - QUADRANT 2
EAST ST. LOUIS, ILLINOIS**

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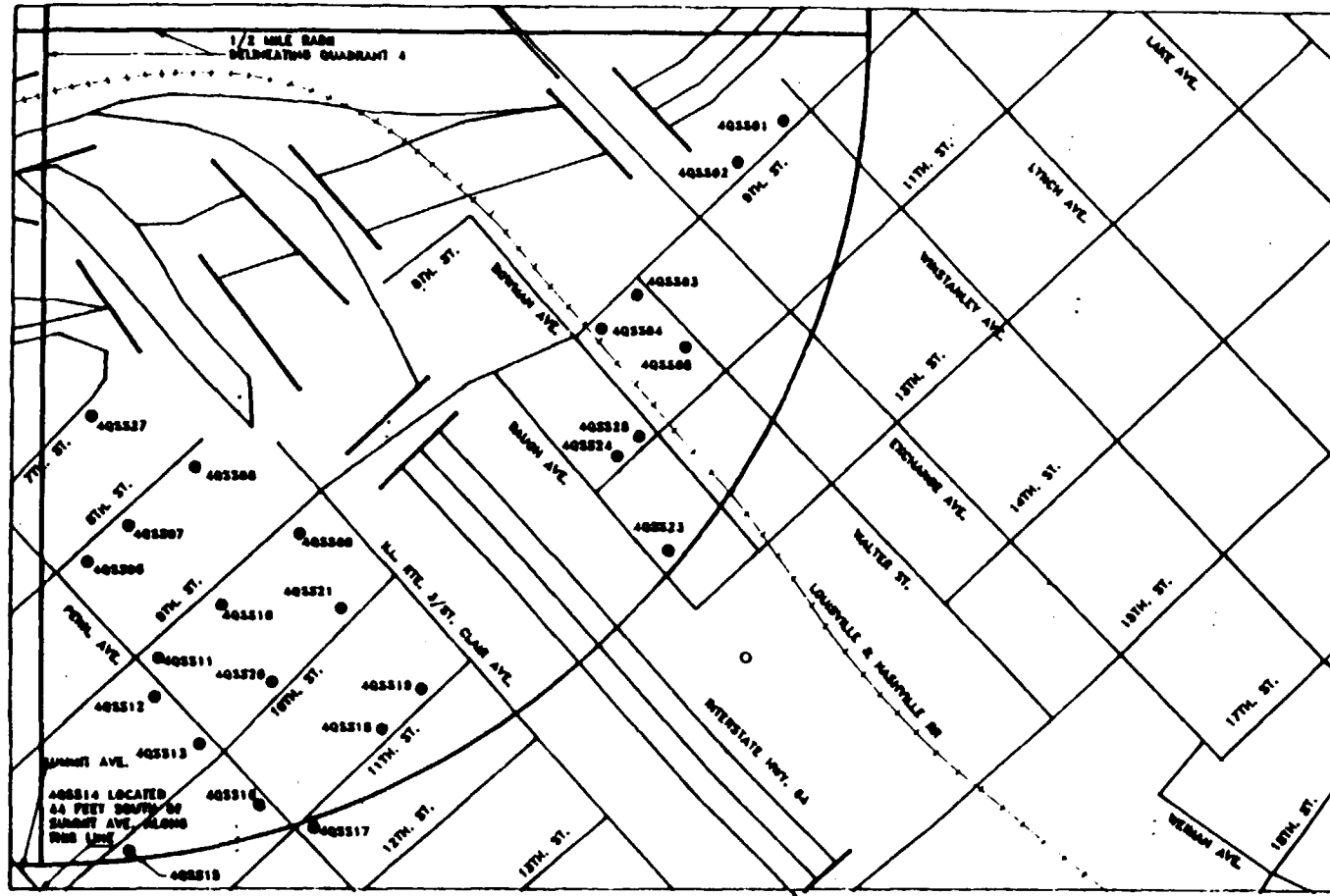
LEGEND:

- 305300 ● - SURFACE SOIL SAMPLE LOCATION
- + - - - RAILROAD TRACKS

SCALE IN FEET (APPROX.)
0 250 500

ecology and environment, inc.

FIGURE 4 - SAMPLE LOCATIONS
GATEWAY INITIATIVE - QUADRANT 3
EAST ST. LOUIS, ILLINOIS



LEGEND:

- 405500 - SURFACE SOIL SAMPLE LOCATION
- RAILROAD TRACKS

SCALE IN FEET (APPROX.)
0 250 500

FIGURE 5 - SAMPLE LOCATIONS
GATEWAY INITIATIVE - QUADRANT 4
EAST ST. LOUIS, ILLINOIS

Table 2
SUMMARY OF SAMPLE ANALYTICAL RESULTS

Sample	Parameter (mg/kg)					
	Arsenic	Cadmium	Copper	Lead	Nickel	Zinc
1QSS01	7.5	2.8	169	481	39.4	1,560
1QSS02	6.5	2.7	145	636	38.3	1,320
1QSS03	8.4	0.44	37.6	114	20.1	279
1QSS04	6.8	1.3	34.4	116	17.8	313
1QSS05	8.9	2.3	51.3	177	21.7	472
1QSS06	5.2	0.91	23.5	100	15.1	217
1QSS07	8.2	3.3	207	634	48.5	2,010
1QSS08	8.4	1.2	58.3	382	26	543
1QSS09	6.5	U	49.2	111	22.4	479
1QSS09D	6.7	U	42.9	146	26.7	417
1QSS10	14.1	4	150	1,340	30.9	1,280
1QSS11	20.7	7.8	223	1,640	22.8	1,200
1QSS12	18.7	62.3	111	1,910	12.1	2,540
2QSS01	8	0.56	140	148	19.5	394
2QSS02	8.6	0.95	47.1	320	21	402
2QSS03	6.8	0.34	48.2	246	18	328
2QSS03D	6.6	0.23	50.7	279	17.6	326
2QSS04	8.6	4	69.1	332	22.3	578
2QSS05	64.8	2.5	378	825	42.1	1,670
2QSS06	8.9	1.2	67.4	437	26.2	700
2QSS07	9.9	U	42.7	235	25.5	385
2QSS08	8	1.7	51.3	507	22.3	926
2QSS09	9.1	0.79	64.6	1,080	23.4	1,480
2QSS10	6.3	U	31.4	225	17.8	238
2QSS11	7.1	0.25	61.4	370	17.7	576

000005

Table 2
SUMMARY OF SAMPLE ANALYTICAL RESULTS

Sample	Parameter (mg/kg)					
	Arsenic	Cadmium	Copper	Lead	Nickel	Zinc
2QSS12	1.6	U	99.9	570	23.1	736
2QSS13	6.1	U	97.2	521	20	580
2QSS14	7.9	3.7	34.4	154	21.2	251
2QSS15	9	0.99	62.8	390	24.2	619
2QSS15D	9.9	0.48	65.5	460	24.3	805
2QSS16	6.9	1.2	86.3	310	18.8	767
2QSS17	11.6	4.3	85.5	581	24.7	808
2QSS18	9	1.6	71.3	875	22.4	662
2QSS19	6.8	U	27	58.3	16.3	178
2QSS20	10.3	2.3	79	478	28	626
2QSS21	12.6	2.2	57.7	441	19.7	551
2QSS22	5.6	0.20	88.2	362	24.2	550
2QSS23	12.5	1.2	111	657	27.2	1,030
3QSS01	8.2	2.1	74.7	379	21	516
3QSS02	9.3	5.6	62.2	395	12.1	544
3QSS03	8.2	3.1	57.4	543	15.2	582
3QSS04	11	1.8	69.4	349	29.8	469
3QSS04D	11	1.5	66.9	328	32.5	448
3QSS05	10.1	2.1	66.6	424	24.2	587
3QSS06	7.6	2.4	48.9	232	21.1	414
3QSS07	8.7	4.2	94.8	621	26	822
3QSS08	21.7	1.2	54.9	330	21.2	287
3QSS09	13.3	8.1	113	746	25.7	1,020
3QSS09D	12.6	8.3	115	757	23.6	1,030
3QSS10	9.8	5.1	105	508	21.9	1,220

009326

Table 2
SUMMARY OF SAMPLE ANALYTICAL RESULTS

Sample	Parameter (mg/kg)					
	Arsenic	Cadmium	Copper	Lead	Nickel	Zinc
3QSS11	5.8	0.28	39.9	117	22.5	268
3QSS12	11.3	7	91.5	457	24.9	849
3QSS13	11.3	2.2	145	703	21.9	935
3QSS14	7.5	0.27	40	288	18	296
3QSS15	6.6	U	55.9	101	16.5	210
3QSS16	11.5	1.9	49.5	1,290	19.2	638
3QSS17	9.4	1.4	49.2	636	25	452
3QSS18	25.4	1.8	53.2	370	17.7	418
3QSS19	6.9	U	19.8	98	16.9	140
3QSS19D	7.1	U	19.4	92.8	17.2	131
3QSS20	12.0	3.6	63	551	18	542
4QSS01	18.4	1.8	134	1,580	224	1,010
4QSS02	11.7	2.5	69.3	3,680	22.3	883
4QSS03	13	U	45.4	151	25.7	277
4QSS04	9.8	3.9	121	938	19.8	1,220
4QSS05	8	4.4	197	675	28.7	993
4QSS05D	6.8	3.6	148	620	28.2	1,060
4QSS06	6.8	1.3	44.3	307	18.3	353
4QSS07	8.5	1.7	57.3	408	42.8	463
4QSS08	7.2	U	76.6	929	46.7	612
4QSS09	6.5	3.2	37.7	294	15	418
4QSS10	9	1.3	46.4	286	18	316
4QSS11	6.9	2.4	47.5	314	15.6	329
4QSS12	6.8	2.2	38.8	433	12.6	311
4QSS13	7.3	2.6	46.1	224	15.1	500

009227

Table 2						
SUMMARY OF SAMPLE ANALYTICAL RESULTS						
Sample	Parameter (mg/kg)					
	Arsenic	Cadmium	Copper	Lead	Nickel	Zinc
4QSS14	5.3	0.94	30.1	116	12.5	234
4QSS15	9.8	10.5	111	837	19.9	948
4QSS15D	9.6	11.2	111	876	19.8	976
4QSS16	7.6	1	32.5	130	16.6	208
4QSS17	6.9	1.6	33.9	139	16.3	243
4QSS18	9.9	1	50.6	206	20.2	277
4QSS19	11.5	4.6	85	653	18.1	600
4QSS20	11.5	2.8	124	553	20.9	459
4QSS21	7	2.3	39.3	183	17.6	329
4QSS22	9.7	1.3	55.2	963	23	501
4QSS23	12.6	4.1	59.7	279	23.8	597
4QSS24	11.9	2.5	89.5	503	24.9	614
4QSS25	15.4	2.5	110	739	21.3	900

Key:

U = Undetected

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